



King County Environmental Purchasing 2000 Annual Report

Environmental Purchasing Program
King County Procurement and Contract Services
www.metrokc.gov/procure/green





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King County Environmental Purchasing Program 2000 Annual Report

Enclosed is the 2000 annual report of the King County Environmental Purchasing Program, showing that King County agencies continued to increase their use of recycled and environmentally preferable materials for the ninth consecutive year, spending **3.5 million dollars** for environmentally-preferable products and **saving \$575,000** through their purchase. We are pleased to share this information with you and your colleagues who are seeking to increase environmental purchasing. This report and other program information are also available on the Internet World-Wide-Web at www.metrokc.gov/procure/green

Please call if you have questions about the King County environmental purchasing policy or its implementation and please add us to the distribution list for environmental purchasing information generated by your organization. Specific and credible information about the experience of others in using these materials is our most important resource and we look forward to learning from your experience.

In addition, this program produces a periodic "Environmental Purchasing Bulletin" that we distribute via E-mail. The bulletin highlights information about King County's experience with recycled and environmentally preferable materials and shares resources. If you would like to receive this bulletin, please send an e-mail request to karen.hamilton@metrokc.gov. To view past bulletins, visit our website at www.metrokc.gov/procure/green/bulindex.htm

Sincerely,

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Enclosure



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2000 Annual Report

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I. King County Environmental Purchasing Program

This annual report summarizes the achievements of King County agencies from July 1, 1999 through June 30, 2000, pursuant to the King Count Environmental Purchasing Policy.

In 2000, King County was awarded the “Buy Recycled – Recycling at Work” award of the **US Conference of Mayors** for it’s leadership in environmental purchasing. The **Office of the Federal Environmental Executive** invited King County to present it’s Environmental Purchasing Program as a case study to the Government to Government - national Smart Green Purchasing Conference and included a case-study in its publication entitled *"Recycling, it's Everybody's Business."* King County is maintaining this position of leadership through the efforts and accomplishments of County employees who actively pursue ways to use environmentally preferable materials in new applications and work with vendors to promote the development of viable and economical environmental products. This report represents the progress of agencies toward the goals of the policy.

The Policy www.metrokc.gov/procure/green/policy.htm

The County’s Environmental Purchasing Policy reflects a long-term commitment to the purchase of environmentally preferable (EP) materials. King County adopted its Recycled Product Procurement Policy (KCC 10.16, Executive Policy CON 7-1-2 – AEP) in 1989. The policy directs County agencies to purchase environmentally preferable products "whenever practicable."

In 1995, the County’s Executive Policy was revised and simplified, to comply with the Federal Executive Order 12873 (since revised as E.O. 13101) “Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition” and the experience of five years of implementation by King County agencies. The revised policy requires County agencies to purchase “environmentally preferable”* products whenever practicable and expands the commitment of agencies to other environmentally preferable initiatives such as reduction of the use of toxic materials, energy conservation, waste-reduction, and “green-building.”

*King County defines “Environmentally preferable” as having a lesser or reduced effect on human health and the environment when compared with competing products that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product.

The Program

The Environmental Purchasing Program aims to fundamentally change the procurement practices of the 13,000 employees of King County and its contractors. With the full participation of the people in the agencies who make purchasing decisions, the County can attain its goal of buying recycled and other environmentally preferable products whenever practicable. The program provides County personnel with information and technical assistance to help them identify economical and effective recycled and environmentally preferable products and creates contracts for their purchase. The program helps agencies understand policy requirements and communicates specifications, contracts, and other practical information between County agencies, vendors, users, and other jurisdictions.

The program's collaborative approach, which relies on the expertise of County employees to evaluate procurement opportunities and revise procedures, is gradually changing the way agencies view these opportunities. County agencies have responded by developing ways to increase the use of recycled and other environmentally preferable products, especially where these will reduce costs, while still meeting performance standards.

Implementation

The **Procurement Services Division** of the King County **Department of Finance** administers the **Environmental Purchasing Program** to help County agencies increase their purchase of environmentally preferable products. The program:

- researches recycled and environmentally preferable products, applications, and vendors and communicates this information to agencies to help them make purchasing decisions;
- encourages agencies to evaluate new products, assists in development of specifications and contracts, and disseminates evaluation results;
- maintains a world-wide-web site and produces an e-mail bulletin to provide users with information about the performance, cost, and availability of environmentally preferable and recycled materials, and about policy implementation strategies;
- reviews policy requirements with agencies and monitors the status of policy implementation;
- transmits the annual report of the King County Environmental Purchasing Program to the County Council, County agencies, suburban cities, other jurisdictions, and the larger community, to promote the exchange of information between personnel in County agencies and their counterparts in other organizations;
- coordinates development and implementation of policy models and procurement guidelines and recommends revisions to County policy;
- provides technical support to the outreach programs of the Solid Waste Division, the Department of Natural Resources, and others, to facilitate the implementation of policies favoring recycled and environmentally preferable procurement by suburban cities in King County;
- ensures that contracts issued by the County require recycled and environmentally preferable components whenever practicable and that contractors provide certification of this content and report amounts purchased; and
- assembles and disseminates evaluation results and reports of environmental purchases by agencies and their contractors.

The Challenges

A number of factors challenge efforts to increase environmental purchasing:

- project managers, designers, and contractors are not familiar with the use of many recycled and other environmentally preferable products and are uncertain of the ways in which they might be effectively specified and applied as substitutes for familiar products;
- developers of environmentally preferable products are often in the early stages of identifying the needs of potential customers and establishing the production, marketing, and distribution capacity to meet them;
- the use of a product must be economically responsible; the cost must be competitive, and contractors must have developed the processes and skills needed for its economical use;
- many products must meet rigorous standards maintained by various governmental and industry regulators and the modification of these standards can be a painstaking, slow, and expensive process. As these standards and specifications are often still under development, manufacturers, regulators, and users may not be equipped to deal with new materials effectively; and
- developing and administering data-collection procedures to obtain information from construction and other service contracts is time-consuming and places unfamiliar demands on participants, which can be costly.
- It is not yet clear what attributes are most "Environmentally Preferable," and how to balance competing claims of environmental preferability. The specifier must decide, for example, how much weight to give recycled content and how much to give low toxicity; or how to balance recyclability against energy efficiency. These questions need to be decided case-by-case, at this point. In the future, we expect trade associations (e.g. the American Plywood Association, etc.) and/or government regulators (e.g. AASHTO) to develop standards and specifications that will clarify these issues.

The Opportunities

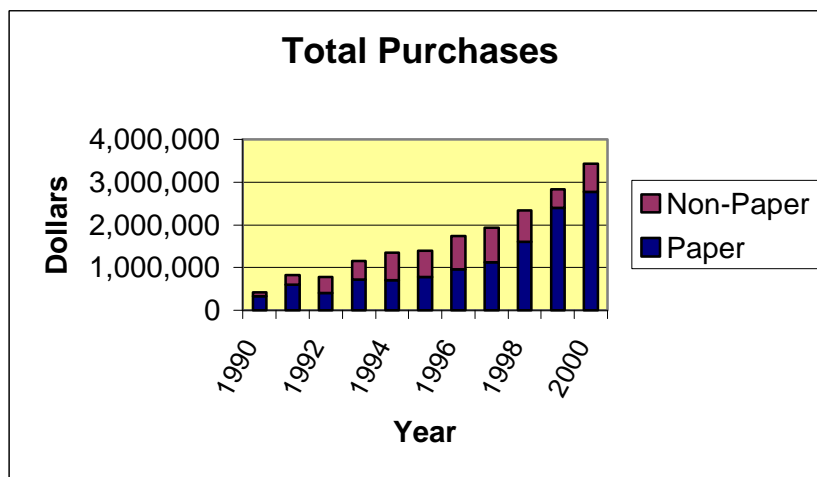
The Program and County agencies are addressing these challenges by:

- maintaining liaisons between agencies and the Environmental Purchasing Program to facilitate policy implementation and data collection;
- assembling detailed application information and performance data from product users and manufacturers and disseminating this to potential users in the County;
- seeking new applications for recycled and other environmental products and encouraging supply and contract managers to specify them whenever possible;

- helping agencies develop specifications for environmental products whenever evaluations establish that product performance and cost are acceptable; and
- evaluating environmental product performance in new applications through testing and pilot programs and sharing the results through the Internet's World-Wide-Web, the email "Environmental Purchasing Bulletin," and by other means with agencies, jurisdictions, and other users;
- helping potential suppliers obtain feedback from users to assist them in product development and helping them understand King County procurement processes;
- expanding our communication network so we can share information about our experiences with other organizations.

II. Purchases & Savings

In the past year, King County has **purchased almost 3.5 million dollars** worth of Environmentally Preferable products, **saving \$575,000** by doing so. EP products include those that have recycled content, reduce waste, use less energy, are less toxic, and are more durable. The Environmental Purchasing Program has earned national recognition as one of the most effective such programs in the Country.



Paper Purchase Summary

King County purchases most printing and office supply paper through centrally administered term-supply contracts, which enable agencies to purchase hundreds of paper products at low and consistent prices. Recycled paper is specified whenever practicable.

Recycled paper purchases have grown from 8% at the start of policy implementation in 1989 to 97% in 2000, exceeding the 60% goal established in policy. King County agencies purchased recycled paper goods valued at almost **2.8 million dollars** in 2000.

The table below shows the dollar value and percentage of total recycled paper purchases for 2000 by category.

1999-2000 Recycled Paper Purchases		\$	%
Photocopy and Bond Paper		553,876	99
Printing Paper*		1,683,191	98
Paper Products, Miscellaneous		533,373	94
Totals:		2,770,440	97

*Estimated cost of paper only, does not include printing costs

Paper Purchase Detail

King County purchases of paper fall into three general categories:

- **Photocopy and Bond Paper** supplied to County agencies meets the requirement of 30% post-consumer recycled content established by Federal Executive Order 13101 (superseded EO 12873). County purchases of recycled paper totaled over **\$550,000** for the 2000 reporting year, **99%** of total copy paper purchases.
- **Printing** by the County Printshop and through contracts administered by the Procurement Services Division use recycled paper whenever practicable. During 2000, recycled paper purchases reached **98%**, totaling nearly **1.7 million dollars**, including the cost of paper for 9 million printed bus-schedules. All new printing contracts executed this year required the use of recycled paper.
- **Other Paper Products** purchased include office supplies, such as envelopes, boxes, folders and notepads, and janitorial products, such as paper towels and tissues. **94%** of these met recycled-content standards in 2000, and totaled nearly **\$535,000**.

Non-Paper Purchase Summary

The purchase of non-paper environmentally preferable products is less straightforward than that of paper products. These products are often not well established in the marketplace and are often purchased within complex engineering and construction contracts. Purchases depend on the specifications of designers, based on project-specific materials requirements; acceptance by State, Federal, and other external standards organizations (e.g. ASTM, AASHTO); product performance, price, and availability; and the ability of contractors to deliver the expertise required for their use.

The table below summarizes year 2000 environmentally preferable non-paper product purchases. The County purchased **\$660,000** worth of these products in the past year. These numbers are obtained from “term” supply contracts, direct purchase orders, and construction contracts. Term contracts require vendors to report purchases to the Environmental Purchasing Program and the program's liaison network captures data when agencies purchase products by other means. More details about these purchases and how they performed follow in the “Purchase Detail” section.

Commodity Purchases	Per	Units	\$
Aggregate, Recycled Concrete	Ton	1,988	17,796
Antifreeze, Remanufactured	Gallon	10,685	28,246
Can Liners, Recycled	Case	5,831	68,384
Compost	Yard	1,700	42,500
Glass Sand	Ton	18	2,300
Oil, Re-refined	Gallon	64,217	136,554
Plastic Lumber	Each	47	10,475
Shredded Wood	Yard	89,509	66,236
Tire Retreading	N/A	N/A	107,706
Toner Cartridges, Remanufactured	Each	4,187	179,991
Total Dollars:	N/A	N/A	\$660,188

Non-Paper Purchase Detail

Purchases of non-paper materials require evaluation and application-development by engineers, architects, and other professionals. This section provides details of some of the ways in which County agencies are addressing the challenges presented by these materials.

Aggregate, Recycled Concrete

Recycled concrete aggregate has been used for temporary road surface at the **Cedar Hills Landfill** of the **Solid Waste Division** since 1991. This agency used **\$18,000** worth of this aggregate in 2000. Using recycled material in place of increasingly scarce and expensive native rock aggregate saves money, as well as diverting material from the waste-stream. For more information, visit the program website at www.metrokc.gov/procure/green/swconag.htm

The specifications used by managers of capital projects typically permit contractors to use recycled materials within specified limits. Since many of the County's contractors obtain materials from suppliers who routinely incorporate recycled concrete to "extend" standard aggregate, it is likely that substantial amounts of recycled material are being used in this way, but the cost of collecting precise quantitative data is prohibitive.

In many projects, concrete is recycled and re-used on-site. King County has had some experience with this on large construction projects, such as the Regional Justice Center and the King Street Center. In March 2000, **the Kingdome**, a multi-use facility, was imploded to make way for a new football stadium, to be privately operated. The contractor was able to grind the concrete after demolition and re-use 90% of the material. 75,000 tons of concrete was crushed on site and used as "fill" on the jobsite, with the remainder being sold for use on other construction projects. More details on this project are included in this article from the Puget Sound Business Journal: www.bizjournals.com/seattle/stories/2000/07/17/focus1.html

Antifreeze

Antifreeze, manufactured with re-refined ethylene glycol, has been purchased under a contract maintained by **Procurement Services Division** since 1991. In 2000, **Motor Pool, Solid Waste Operations, and the Renton Maintenance Facility** used over **1,200 gallons** of re-refined antifreeze and **returned over 1,000 gallons** of spent antifreeze to the supplier for "closed-loop" re-refining into new antifreeze. This contract also requires that the material be re-refined in a manner that meets all regulatory requirements, thereby avoiding the discharge of a toxic material into local waterways and ensuring compliance with State and Federal regulations.

In February of 1999, the County's **Metro Transit** Division awarded a contract for re-refined concentrated ethylene glycol antifreeze for buses. They introduce the "additive packages" in the maintenance shops. In 2000, they purchased **9,500 gallons** of re-refined antifreeze, at a cost of **\$25,000**, and **saved \$17,000** by its use.

Total purchases, in 2000, including Transit and other County fleets were **10,685 gallons**, at a cost of **\$28,246**. For more information about King County's use of antifreeze, visit the program website: www.metrokc.gov/procure/green/antifrz.htm

Asphalt

The King County Roads Operations section is planning to initiate an evaluation of the performance of a new cold-patch compound that will reduce the amount of Volatilizing Organic Compounds (VOCs) released to the environment. The cold-patch products used in the past release large amounts of VOCs to the atmosphere, while the new product releases none at all and is manufactured with recycled asphalt. Tests are expected to begin in September and be completed in 2001.

Can-Liners

In 2000, King County purchased nearly **6,000 cases** of can-liners at a cost of almost **\$70,000**. These were made with 30% high-density polyethylene (HDPE) or 25% low-density polyethylene (LDPE) recycled post-consumer plastic. Recycled plastic bags have been used with good results since 1991. For more information, visit the program website at www.metrokc.gov/procure/green/plasbags.htm

Compost

Compost-amended topsoil is specified for use in maintenance and in construction projects. **The Roads Engineering Section** reported that in the past year, their contractors used approximately **1,700 cubic yards**, at an installed cost of **\$42,500**. Twenty-eight percent of the material used was **biosolids compost** and seventy-two percent was **yard-waste compost**. Further information about the use of compost by County agencies is available at the program website at www.metrokc.gov/procure/green/compost.htm

Glass – Filtration Sand

The **Department of Parks and Recreation** began using recycled glass sand in place of conventional filter sand in the pool filters at the **King County Aquatics Center** in Federal Way.

An initial **eighteen tons** of recycled glass was installed in 1998. The cost is roughly the same as that of virgin material, but it is expected to out-perform the conventional sand and reduce replacement costs. Early monitoring data suggest that this material filters more efficiently and produces clearer water. These performance improvements will also save the County money in

energy, water, and sewerage costs. Since the results have been positive, King County Parks has established a purchase contract for recycled glass sand for use by all of their pools, as needed. In 2000, Parks purchased **\$2290** worth of filter media. For more information, visit the program website: www.metrokc.gov/procure/green/pksglass.htm

Glass – Sandblasting Sand

King County **Solid Waste Division** specified recycled glass as a sandblasting medium for a project at the Factoria Transfer Station in 1999. Specification language can be seen at www.metrokc.gov/procure/green/glass.htm. Information on the County's past use of recycled glass as a sandblasting medium at the Renton wastewater treatment plant can be found on the program website at www.metrokc.gov/procure/green/trivitra.pdf

Oil, Re-refined

Motor oil made with re-refined base-stock has been used in County vehicles operated by the **Renton Maintenance Facility**, and **Solid Waste Operations** since 1992. In 1999, the **Transit Division** began evaluating the use of re-refined oil in their buses. They tested 15W40 oil in all of the coaches at one of their downtown bus bases and the trials showed re-refined oil to be equal in price and performance to virgin oil. In the Fall of 1999, METRO Transit became one of the first major metropolitan Transit authorities in the nation to adopt the use of re-refined motor oil for its entire fleet of over 1200 buses. Please see the press release for more information: www.metrokc.gov/exec/news/2000/021400.htm

Since 1998, fifteen **Medic-One** emergency vehicles, operated by the **Department of Public Health** have obtained warranty-maintenance service from their Ford dealership using re-refined oil.

In 2000, the County purchased almost **65,000 gallons** of re-refined oil at a cost of over **\$135,000**. For more information on re-refined oil, visit the program website at www.metrokc.gov/procure/green/oil.htm

Oil Recycling

True "closed-loop" re-refining, in which agencies return used oil to the re-refiner from whom oil is purchased, has not been consistently available in our area, but agencies intend to continue participating in closed loop re-refining whenever practicable.

Plastic Lumber – Equipment Shop

The **Renton Maintenance Facility** of the **Fleet Administration Division** requires new dump trucks to be outfitted with recycled plastic sideboards before delivery. High-quality old growth fir had been customarily used in this application, but it is increasingly scarce and expensive. Since 1996, the Division has been retrofitting all of its trucks with recycled plastic because it is more impact-resistant and needs to be replaced less frequently, saving money in the long-term despite its somewhat higher initial cost. In the past year, the Renton Facility has purchased **12 plastic sideboards**, at a total cost of **\$1,800**. Because replacement frequency has been reduced from two wooden sideboards per week to fewer than one plastic sideboard per month, the Division is **saving \$5,000 per year** in materials costs alone. For more information, visit the program website at www.metrokc.gov/procure/green/errlbr.htm

Plastic Lumber – Parks Applications

Parks Division has purchased **plastic lumber** for various park furnishings, including benches, tables, and playground equipment. For many of these applications, plastic lumber is preferred for its resistance to decay, graffiti and chemical damage. This material results in significant cost-savings when used as a substitute for chemically treated lumber in applications involving contact with soil and water and in other high-maintenance environments.

The Parks Division plans to begin construction of a **recycled plastic boardwalk** in September, 2000. They are ordering two different kinds of plastic lumber for the project – 100% plastic and a plastic/wood composite. They received a Community Action Grant to help fund this project and will be using volunteers for the project.

Since 1997, **Parks Division** has installed playground structures made with recycled plastic, steel, and aluminum. Although, there were no new installations in the past year, there are currently five new projects underway for completion within the next year.

The Division also used plastic lumber in 1998 for engraved posts at 17 campground sites and 8 water stations at the **Tolt River Campground** and Parks personnel are testing the plastic to determine how well this material will endure contact with soil and water. Wooden posts in this environment must be replaced every 4 or 5 years and the recycled plastic will greatly reduce replacement costs. No new purchases have been made in the past year, but Parks personnel report that the recycled plastic markers installed two years ago are performing well. For more information about Park's use of recycled plastic lumber, visit the program website at www.metrokc.gov/procure/green/pkslbr.htm

Plastic Lumber – Transit Applications

The **Transit Division** has been purchasing recycled plastic benches since 1998 for use at bus stops where a bus shelter is too costly or otherwise not suitable. In the past year, Transit has purchased **35** more benches at a cost of **\$8750**. Maintenance personnel have commented that these benches have held up very well and are vandalism-resistant. Local jurisdictions have liked the design and have been pleased with the benches. Images of these and other recycled plastic park furnishings can be found on the program website at www.metrokc.gov/procure/green/images.htm

Shredded Wood

Wood chips made from shredded land-clearing debris is used by the **Solid Waste Division** for temporary road surface at the Cedar Hills Landfill and as landscape mulch in County projects. The **Cedar Hills landfill** uses this material, as well as recycled concrete aggregate, to provide stable driving-surfaces, especially during rainy seasons. The landfill purchased almost **90,000 cubic yards** of wood-mulch, at a cost of over **\$65,000** in 2000, **saving an estimated \$90,000** by using wood-mulch instead of virgin aggregate. For more information, visit the program website at www.metrokc.gov/procure/green/swhog.htm

The **King County Roads Division** obtained over **1,600 cubic yards** of "Shredded Tree Mulch" from local tree-trimming contractors. According to the contractors, they ordinarily pay to dispose of this material, so the Roads Division arranged to have it delivered (free of charge) to their project. It is being used to cover a new slope and provide for long term organic nutrients in the sterile gravel slope.

Tire Retreading

Tire retreading services worth **over \$100,000** were used to retread tires for trucks and other heavy equipment at the **Renton Maintenance Facility, Fleet Division** and the **Cedar Hills Landfill** of the **Solid Waste Division**. Retreading a tire costs about half as much as buying a new tire. This not only avoided landfill disposal of tires, but also **saved the County approximately \$100,000** in new-tire expense in 2000.

Toner Cartridges, Remanufactured

Remanufactured toner cartridges for laser printers are purchased under a contract developed in collaboration with local vendors and maintained by the Environmental Purchasing Program since 1991. Cartridges supplied under this contract must meet original equipment (OEM) standards and provide full performance guarantees. In 2000, the County purchased **over 4,000 cartridges**, at a cost of **approximately \$180,000**. These purchases **saved \$350,000**, as the cost of these remanufactured cartridges is approximately one-third the cost of new cartridges. Spent cartridges are remanufactured and all components are recycled when their useful life is over, reducing the landfill disposal of hazardous material. For more information, visit the program website: www.metrokc.gov/procure/green/tonecart.htm

Savings Summary

In 2000, the County **saved approximately \$575,000** by purchasing recycled materials. The table below shows these savings by commodity.

The Environmental Purchasing Program has helped agencies identify opportunities to purchase environmentally preferable products that not only perform well, but also save money. In some cases, the product simply costs less and in other cases there are savings in installation and maintenance costs. For example: the cost of a remanufactured toner cartridge is about one-third the cost of a new cartridge; shredded wood costs less than virgin aggregate; plastic lumber avoids the consumption of virgin timber and reduces maintenance cost; buying concrete aggregate avoids the consumption of virgin aggregate; and it costs half as much to retread a worn tire as to buy a new one.

Commodity	\$	Savings
Toner cartridges	350,000	Product
Tire Retreading	100,000	Product
Wood mulch	98,000	Product
Antifreeze	17,000	Product
Plastic lumber	6,250	Product and maintenance
Concrete Aggregate	2,000	Product
Total Dollars:	\$573,250	

The amounts shown above reflect only the cost of materials and do not include savings in labor costs for installation or maintenance.

III. History and Links

Although the County uses many important recycled materials in the course of its work, not every product is purchased in every year. The products described below were not purchased in significant quantities in the year 2000, but work is ongoing or expected to recur. Also, in this section are links to websites with further information about these materials.

Aggregate, Glass

Aggregate composed of 100% recycled glass has been used in projects of the **Solid Waste Division** and **Roads Division** for pipe-bedding and trench backfill in place of virgin rock aggregate. These applications have resulted in cost-savings, but are still considered trial uses, since the availability and quality of recycled glass aggregate is highly variable. For more information about these projects, visit the program website. Information about Roads Division's use of this material in backfill applications, can be found at www.metrokc.gov/procure/green/rdsxlsag.htm. Solid Waste Division's use of glass aggregate for pipe-bedding, can be seen at www.metrokc.gov/procure/green/swhxlsag.htm

Asphalt

Asphalt can be economically and effectively recycled and used in many applications. Documentation of King County's use of recycled asphalt is available on the program website. A project summary of the **Road's Division** use of recycled asphalt can be found at www.metrokc.gov/procure/green/rdsasph.htm and the project summary of the **Regional Justice Center** at www.metrokc.gov/procure/green/rjcasph.htm.

In 1998, **Roads Division** used asphalt made with recycled rubber in an "overlay" project. It had been suggested that using "rubberized asphalt" might reduce traffic noise in this 6.3-mile project. No significant differences in noise-levels were found between the asphalt surfaces. The cost of the rubberized section was approximately 35% higher than conventional asphalt. For more information about this project, visit the program website at www.metrokc.gov/procure/green/rdsasph2.htm

Compost

A significant amount of compost was specified by the **West Point** waste-water treatment project, which used **40,000 cubic yards** of topsoil amended with biosolids compost in 1996. To read more about that project, visit the program website at www.metrokc.gov/procure/green/wpcomp.htm

Concrete Aggregate

In 1995, the **Regional Justice Center** construction contract required concrete demolition debris to be recycled on-site. By processing and using recycled concrete and asphalt at the job-site, the project saved money in disposal and purchasing costs. Details can be found on the program website at www.metrokc.gov/procure/green/rjconag.htm

Details of Solid Waste Division projects that used recycled concrete as backfill, can be seen at www.metrokc.gov/procure/green/swhconag.htm

Energy Efficient computer and office equipment

Energy Efficient computer and office equipment can be obtained meeting standards set by the ENERGY STAR® program of the Environmental Protection Agency. According to information at the ENERGY STAR® website (www.energystar.gov/) “A typical office can **save approximately 50% of the electricity costs** associated with office equipment by taking advantage of the power management features of ENERGY STAR Office Equipment.”

Paint

Paint products with recycled content have been purchased in limited quantities by County agencies through the years. In 1999, County contractors used recycled paint, as well as low-VOC paint, in the new **King Street Center** County office building, and used recycled paint in the newly opened **Vashon Transfer Station**. For information about King County's experience with recycled paint, visit the program website at www.metrokc.gov/procure/green/paint.htm.

Plastic Bollards

Recycled plastic seems an ideal material for this application because it resists decay indefinitely and does not leach wood preservatives into groundwater. Roads and Parks Divisions evaluated the use of recycled plastic bollards in the early 1990's. The bollards they evaluated were purchased using the standard specification for bollards of the Washington State Department of Transportation (WSDOT). In this configuration, they were too heavy for crews to install easily and were much more expensive than treated wood. Evaluation of the structural properties of this material may enable WSDOT to develop a new specification for recycled plastic bollards. The program continues to monitor progress in this area and encourage development of such a specification.

Plastic Lumber – Stadium Applications

Stadium Administration Maintenance Section personnel used recycled plastic lumber to replace wooden 4"x4"x8' "channel boards" to secure the Kingdome artificial turf from 1994 to 2000. The performance of this material proved superior to that of virgin lumber and demonstrated a longer replacement schedule and lower life-cycle cost. The use of recycled plastic lumber for channel boards was also adopted by other stadia, including the Minneapolis Metrodome and B.C. Place in Vancouver B.C., Canada. The County-operated stadium was demolished in 2000 to make room for a new football stadium. For more information about this product and application, visit the program website at www.metrokc.gov/procure/green/stadlbr.htm

Plastic Lumber - Roads Applications

In 1996, the **Bridge Unit** of the **Roads Division** tested plastic lumber for use in repairing timber bridges. The vendor worked with County engineers to reinforce and modify the product to meet performance requirements. Initial results indicated that the plastic lumber deflected excessively, which limits its use to applications with low structural requirements. The Bridge Unit concluded that the plastic lumber itself had merit, but was not ideal for the application of replacement of “wingwall dimensional lumber”. Other user reports indicated that the material was too expensive, was not readily available, and lacked industry standards. The program is monitoring progress in this area.

Rubblizing

In 1998, the King County **Roads Division** tested a process in which deteriorated concrete roadways were rehabilitated by crushing the surface into rubble and using it as a base for a new asphalt road surface. For more information about this project, visit the program website at www.metrokc.gov/procure/green/rdsasph2.htm

Wood Mulch

A collaboration between a supplier of shredded wood and the **West-Point wastewater treatment facility** of the **Department of Natural Resources** led to the purchase of recycled wood for use as a horticultural mulch. The producer opened a new market based on the product developed through that collaboration and it has been successful in the marketplace. To learn more about that project, visit the program website at www.metrokc.gov/procure/green/wpmulch.htm

IV. Supporting Program Elements

The Environmental Purchasing Program helps agencies develop practical ways to use recycled and other environmentally preferable products and processes, through several program elements, detailed in this section.

Agency Liaison Network

The program uses a network of agency liaisons to provide clients with information on environmentally preferable products and processes and share evaluation results and specifications between agencies. This helps agencies to create new evaluation opportunities and revise contract administration procedures to institutionalize the routine use of these materials.

Internet Information Project

The communications capacity of the Internet has brought great changes to the way this program delivers information to its clients. This annual report, for example, is distributed principally through e-mail, with only a few paper copies produced. The program delivers most of its information to clients through email or the world-wide-web.

World-Wide-Web www.metrokc.gov/procure/green

The King County Environmental Purchasing Program has maintained a website **since 1995**, as a resource to participants in the King County program as well as others in the community. **Almost 75,000** Internet users have visited the Program website in the past year. Clients visiting this website find information on King County's experiences with recycled and environmentally preferable products, specifications, evaluations, contracts, and contact information.

Municipalities and other organizations throughout the nation are beginning to recognize the difference they can make to the environment by purchasing environmentally preferable products. Thanks to the leadership of King County agencies, purchasers are able to use the Internet to find information that will help them understand their opportunities in this confusing new area.

People from all over the world are taking advantage of this site and these contacts are bringing new information that County agencies, suburban cities, and others can use as we all try to develop new applications for recycled and other environmentally preferable products.

In the past year, comments have been left at the program web site by visitors from :

The Nations of:

Australia	Barbados	Belgium
Bolivia	Canada	China
India	Greece	Saudi Arabia
South Africa	Spain	Sri Lanka
United Kingdom		

The States of:

Arkansas	Delaware	Illinois
Iowa	Kentucky	Maine
Montana	Ohio	Ontario, Canada
Oregon	Rhode Island	South Carolina
Utah	Washington	

The Counties of:

Clark Co, WA	Island Co, WA	Jackson Co, MI
Sacramento Co, CA	Washtenaw Co, MI	

The Cities of:

Akron, OH	Atlanta, GA	Austin, TX
Baker, LA	Bangkok, Thailand	Beirut, Lebanon
Belfast, Ireland	Bend Oregon	Birmingham, AL
Boston, MA	Cairo, Egypt	Dhumbaharai, Nepal
Gujarat, India	Dunkirk, MD	Hong Kong, China
Jeddah, Saudi Arabia	Kirov Region, Russia	Kuala Lumpur, Malaysia
Lagos, Nigeria	Lasalle, Quebec, Canada	Logan, Utah
London, England	Matale, Srilanka	Medina, WA
Melbourne, Australia	Moscow, Russia.	North Bay, Ontario, Canada
Olympia, WA	Palo Alto, CA	Port Washington, NY
Redmond, WA	Rio de Janeiro, Brazil	Riverside, CA
Sacramento, CA	San Bernadino, CA	San Francisco, CA
San Luis Obispo, CA	Seattle, WA	Seville, Spain
Sofia, Bulgaria	Solana Beach, CA	Springdale, Arkansas
St. Paul, MN	Stamford, CT	Stockholm, Sweden
Streamwood, IL	Tel-Aviv, Israel	Vancouver, BC, Canada
Winnipeg, MB, Canada		

and the Universities of:

Queens College Belfast
National Central University, Taiwan
University of Indonesia
University of Missouri
University of Sheffield, UK
University of Nebraska-Lincoln

Leed Metropolitan University
University of Limerick, Ireland
University of Nottingham
University of Western Sydney, Australia
University of Dundee

E-mail Environmental Purchasing Bulletin

www.metrokc.gov/procure/green/bulindex.htm

The Program began producing an "Environmental Purchasing Bulletin" in 1997 to disseminate information about recycled and environmentally preferable products, events, contracts, and other resources. Recipients include participants in the program's County liaison network, suburban cities, and others across the nation. As of June, 2000, there are over **500** direct recipients of this bulletin. Many of these recipients originate their own list-servs and newsletters and forward the bulletin to others by those means. An index and the full contents of past bulletins can be found on the program website.

Representative examples of 1999/2000 Bulletin titles:

King County Metro Transit switches to re-refined motor oil
Environmental Purchasing - King County Wins National Award
Janitorial Cleaners Project
Green Paint
Recycled Roadway Materials
Vashon Transfer/Recycling Station
Pesticides: Progress in King County
Integrated Pest Management (IPM)
Native Plant Salvage Program
Soils and Salmon
WSU Energy Report
Environmental Purchasing Events
ENERGY STAR® requirements
Product Stewardship

Internet Discussion Groups

We participate in several Internet discussion groups, where we exchange environmental purchasing information with other jurisdictions, many of which now subscribe to our Environmental Purchasing Bulletin. The participants come from across the nation and bring a wide range of experience, which has been shared with County agencies for evaluation.

- **EPPNET** – the Environmentally Preferable Purchasing Network, sponsored by the Northeast Recycling Council (NERC). The Council publicizes the availability of our "Environmental Purchasing Bulletin" to their network subscribers.

- **Waste Prevention Forum** – a discussion group managed by King County Solid Waste Division, and part of the National Waste Prevention Coalition.
- **Green Building** – a discussion group on green-building topics, sponsored by Oikos (a sustainable and energy-efficient construction resource) and Environmental Building News.
- **IAQ@Onelist.com** – a discussion group on indoor air quality issues.

Public Involvement

The King County Environmental Purchasing Program offers its experience in support of the planning, policy-development, and procurement-education activities of other jurisdictions and organizations.

The program provided technical assistance to, and exchanged information with, suburban cities in King County, as well as state and federal agencies, and other users. In 1999-2000, program personnel participated in the meetings, programs and conferences conducted by the following organizations:

- **American Society for Healthcare Engineering (ASHE) Conference**
The Environmental Purchasing Program, in collaboration with the Business Program of the King County Solid Waste Division presented “Keys to Success in Environmental Purchasing” at the ASHE annual conference
- **EPA WasteWise Forum: Buying Recycled “The Real Story About Cost, Availability and Quality”** www.epa.gov/epaoswer/non-hw/reduce/wstewise/wwsf/index.htm
The Environmental Purchasing Program was selected as the example of a successful government program to participate in a national satellite forum to over 500 downlink sites. This interactive program provided businesses, governments, and other organizations with insights on ways to purchase quality competitively priced recycled-content products.
- **Government to Government: Smart Green Purchasing Conference**
The White House Task Force on Recycling has asked the King County Environmental Purchasing Program to present it’s successful government Environmental Purchasing Program as a case study. This national meeting will bring together experts and officials from federal and local government agencies to explore how to accelerate and expand environmentally preferable purchasing.
- **National Recycling Coalition**
The Environmental Purchasing Program presented two educational sessions at the annual national congress in Cincinnati, Ohio in 1999.
- **Sustainable Building Forum – Solid Waste Division**
The Solid Waste Division hosted a forum at which King County agencies were able to share information about sustainable building. This effort will help agencies to integrate the sustainability message into the County's various technical assistance programs.

- **Soils for Salmon**

Participated in a day-long workshop attended by over 15 County Engineers and Project Managers, at which the information was presented on the significance of soils to aquatic ecosystems and on opportunities for improvement.

- **US Conference of Mayors**

Made a presentation at the Municipal Waste Management Association's (MWMA) Annual Meeting, at which the County received the **Buy Recycled – Recycling at Work** Award, of the **US Conference of Mayors**.

Publicity

A key to the success of the King County Environmental Purchasing Program has been the exchange of practical information with other users of these unfamiliar materials. Many of these exchanges have come as a consequence of exposure through national magazines, newspapers, and other publications.

In the News

Among the publications which featured the King County Environmental Purchasing Program in 1999/2000:

US Conference of Mayors, Buy Recycled Training Institute's Best Practices Guide
Spring, 2000 "*King County Environmental Purchasing Program*"
www.usmayors.org/USCM/uscm_projects_services/buy_recycled/king_county.htm

US Conference of Mayors press release: March, 2000
"*Mayors Name Winners of Recycling at Work Campaign*"
www.usmayors.org/uscm/recycle/awards/2000pressrelease.htm

National Association of Counties (NACo): County News on-line April 2000
"*King County, Wash. Metro Transit switches to 're-refined' motor oil*"
www.naco.org/pubs/cnews/00-4-3/kingcounty.htm

Daily Journal of Commerce: February, 2000
"*County opts for re-refined motor oil*"
www.djc.com/business/sc.html?id=11004321

US Environmental Protection Agency EPPUpdate: April 2000
"*Governments Think Locally About Environmental Purchasing*"
Environmental "Can Do" in King County
www.epa.gov/oppt/epp/pdfs/update6.pdf

King County press release: April, 2000
"*King County Wins Buy Recycled Award*"
www.metrokc.gov/exec/news/2000/0407001.htm

Lubricants World: June, 2000

"King County Metro Transit Switches to Re-Refined Motor Oil"
www.lubricantsworld.com

Northwest Pollution Prevention Resource Center Newsletter: Fall, 1999

"How to Make Green Buying Programs Work"
www.pprc.org/pprc/pubs/newslets/news1199.html#story2

Office of the Federal Environmental Executive, White House Task Force on Recycling
publication: Summer, 1999

"Recycling...for the Future, It's Everybody's Business"
www.ofee.gov/html/everybod.pdf

Washington State Recycling Association (WSRA) newsletter : December, 1999

"King County Metro Transit Switches to Re-Refined Motor Oil"
www.wsra.net/

Awards:

In 2000, the Environmental Purchasing Program received an award from the US Conference of Mayors – Recycling at Work Program for its leadership in environmental purchasing.

In 1998, King County was awarded the first annual **Environmental Purchasing award** of the **National Association of Counties (NACo)**, which recognized the County as a national leader in municipal procurement of recycled and environmentally preferable materials.

Model Procurement Policy

Program personnel continued to promote the development of recycled and environmentally preferable procurement policies in suburban cities by providing technical support to the Solid Waste Division's Waste Reduction/Recycling Section. The model was revised in 1997 to broaden the range of environmentally preferable products. Program personnel also provide direct technical assistance to suburban cities for policy implementation, including sharing contracts, specifications, and procurement strategies. According to the Solid Waste Division, twenty-one cities have adopted policies, based on King County's model, since 1992:

Bellevue	Burien	Carnation
Des Moines	Duvall	Enumclaw
Federal Way	Issaquah	Kent
Kirkland	Lake Forest Park	Mercer Island
Normandy Park	North Bend	Pacific
Redmond	Renton	SeaTac
Snoqualmie	Tukwila	Woodinville

Allied King County Programs

Many King County programs provide information and technical assistance to help citizens and businesses find ways to help improve our environment. The Environmental Purchasing Program has collaborated with the following programs for the dissemination of information in 1999/2000:

Business Programs, Solid Waste Division: (dnr.metrokc.gov/swd/bizprog/index.htm)

including Construction Recycling/Sustainable Building, Waste Reduction and GreenWorks programs provide technical assistance to County businesses to enhance waste reduction, recycling and buy-recycled practices and recognize these businesses for their efforts.

Hazardous Waste Program, Department of Natural Resources: (www.metrokc.gov/hazwaste)

provides technical assistance on hazardous-waste issues to businesses and citizens, including free waste audits. This group also administers the Envirostars recognition program, to recognize businesses that reduce and/or properly manage hazardous waste. This program has taken the lead on the Tri-County IPM (Integrated Pest Management) policy (www.metrokc.gov/hazwaste/ipm/)

Industrial Materials Exchange (IMEX), Department of Public Health

(www.metrokc.gov/hazwaste/imex/): IMEX is a free service designed to match businesses that produce wastes, industrial by-products, or surplus materials with businesses that can use them productively. The program produces a catalogue to encourage waste exchanges, create opportunities for recycling and reduce landfill disposal of surplus materials.

King County Commission for Marketing Recyclable Materials, Dept. of Natural Resources

(<http://dnr.metrokc.gov/market/>): assists County businesses and citizens in marketing and buying recycled products with programs such as "Get in the Loop," "Shift Gears" and the new "Link Up" program which helps manufacturers develop recycled products. In 2000, the "Link Up" program hosted a sandblasting demonstration at the King County wastewater treatment plant in Renton, using recycled glass media produced by a local company. The audience included private contractors, as well as County personnel.

King County Earth Legacy Program, of the King County Executive

(www.metrokc.gov/earthlegacy/) Launched in May of this year, the King County Earth Legacy Initiative celebrates the importance of protecting and enhancing our natural environment. The Initiative outlines a number of innovative programs that are working hard to maintain the rich integrity of our region, as well as our high quality of life. It actively engages the involvement of businesses, local government, organizations, youth, employees, and the broader community to make a difference.